Corporate Governance Indicators and Sustainability Reporting Quality of Listed Firms in Nigeria

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Abstract

Sustainability reporting quality is a reflection of management commitment to transparency and accountability in listed firms. Poor quality reporting has resulted into diminished trust in organizations management and downward trend in the trust on the management of the firms. Research has shown that not many listed firms have integrated corporate performance indicators in to their operation. This study explores the relationship between corporate governance indicators and sustainability reporting quality among listed firms in Nigeria, focusing on three key sectors: industrial goods, construction/real estate, and oil and gas while the census method of sampling was used. Drawing on longitudinal data spanning from 2013 to 2023, the ordered logistic regression analysis was employed to investigate the impact of board size, board independence, board gender diversity, board financial expertise, and audit committee size on sustainability reporting quality. While the findings indicate a generally insignificant influence of board size, board independence, and board financial expertise on sustainability reporting quality, significant positive associations are observed between board gender diversity and audit committee size on sustainability reporting quality(0.1232 and 0.0153 coefficient respectively). The study concludes that the management of the firms should optimize board membership for diverse skills, fostering effective decision-making processes, and encouraging board gender diversity to enhance sustainability reporting quality in Nigerian listed firms.

Keywords: Board gender diversity, Board independence, Board size, Corporate governance, Sustainability reporting quality

1.0 Introduction

The discourse surrounding corporate governance and the quality of sustainability reporting has consistently occupied a significant place on the global stage (Rabi (2021). An effective corporate governance framework bolsters investor confidence, fosters transparency, and thereby facilitates augmented disclosures and the creation of reports of high caliber. Corporate governance encompasses a constellation of regulations, traditions, and protocols that steer and regulate business undertakings. As clarified by Osemene and Fagbemi (2019), it encompasses the intricate web of relationships between a company's management, its board of directors, shareholders, and other pertinent stakeholders (Githaiga & Kosgei, 2023).

Sustainability reporting quality is a pivotal aspect of corporate accountability in the contemporary business environment. It involves the systematic disclosure of an organization's

environmental, social, and governance (ESG) performance to stakeholders, including investors, regulators, employees, customers, and communities. High-quality sustainability reporting goes beyond mere compliance with regulations; it reflects an organization's genuine commitment to sustainability and responsible business practices (Amran, Lee, & Devi, 2014; Jadoon, et. al., 2021). Against this backdrop, this study delved into the intricate relationship between corporate governance and sustainability reporting quality of listed firms in Nigeria using the following indicators: board size, board independence, board gender diversity, board financial expertise and audit committee size while financial performance and firm size were used as control,

Haladu and Bin-Nashwan (2022); Kumo, Hamid, and Sahdan (2023) and Onyali, Eze and Okerekeoti (2022) stated that many Nigerian companies have faced accusations of opacity in their corporate governance practices and reporting. Instances of insufficient disclosure of Environmental, Social, and Governance (ESG) performance data raise concerns about accountability and trustworthiness

Numerous research endeavors have investigated the impact of corporate governance on sustainability reporting within the context of individual firms (Olayinka & Owolabi, 2021), specific countries (e.g., Adegboye, Ojeka, Alabi, Alo & Aina, 2020; Erin, Adegboye & Bamigboye, 2021; Oyekale, Olaoye & Nwaobia, 2022; Shuaibu, Muhammad & Isah, 2019), and cross-country analyses (Kilincarslan, Elmagrhi & Li, 2020; Ofoegbu, Odoemelam & Okafor, 2018).

Despite the increasing significance of sustainability reporting and its alignment with responsible business practices, there remains a scarcity of comprehensive empirical investigations that delved into the intricate dynamics between corporate governance and sustainability reporting quality within the context of Nigeria's diverse industries (Umukoro, Uwuigbe, Uwuigbe, Adegboye, Ajetunmobi & Nwaze, 2019). While Okere, Rufai, Okeke and Oyinloye (2021), Osemene and Fagbemi (2019) and Olayinka and Owolabi (2021) has examined the impact of corporate governance on sustainability reporting in various settings. There is a dearth of research specifically tailored to the quality of sustainability reporting in Nigeria's unique business environment.

Empirical studies have examined the relationship between corporate governance and sustainability reporting, yielding a range of findings. Some studies, such as those by Adegboye, Ojeka, Alabi, Alo and Aina (2020); Al-Shaer, Salama and Toms (2017); Bakar, Ghazali and Ahmad (2019); Rabi (2021); Rafique, Malik, Waheed and Khan (2017) and Shuaibu, Muhammad and Isah (2019) have shown that corporate governance variables and sustainability reporting are related in a positive way. These studies argue that factors such as board diversity, board independence, and board size are associated with improved sustainability reporting practices. However, Kilincarslan, Elmagrhi and Li (2020); Mawardani and Harymawan (2021); Odoemelam and Okafor (2018) and Onyali, Eze and Okerekeoti (2022) found a contrary result and argued that the relationship between corporate governance and sustainability reporting tends to be negative.

In the existing body of research, studies such as Corvino, Doni, and Bianchi-Martini (2020), Diamastuti, Muafi, Fitri, and Faizaty (2021), Erin, Adegboye, and Bamigboye (2021), Nadeem, Zaman, and Saleem (2017), Odoemelam and Okafor (2018), Oyekale, Olaoye, and

Nwaobia (2022), Rabi (2021), and Rafique, Malik, Waheed, and Khan (2017) have predominantly focused on examining industries or sectors in isolation, such as the industrial goods sector, financial sector, or construction/real estate sector. However, there is a discernible need to extend the scope of investigation by integrating multiple industries. This would facilitate a comprehensive empirical analysis aligned with the study's overarching objectives.

By embracing a multi-industry perspective, the study aims to fill a significant gap in the current research landscape and provide a more holistic understanding of how corporate governance interacts with sustainability reporting quality across diverse sectors.

The broad objective of this study is to investigate the relationship between corporate governance and sustainability reporting quality of firms listed on the Nigerian Exchange Group. The specific objectives are to: to determine the effect of board size on sustainability reporting quality of listed Nigerian firms, to investigate how board independence affects the sustainability reporting quality of listed Nigerian firms, to examine the effect of board gender diversity on sustainability reporting quality of listed Nigerian firms, to ascertain how board financial expertise affects sustainability reporting quality of listed Nigerian firms and to determine the effect of audit committee size on sustainability reporting quality of listed Nigerian firms.

2.0 Literature Review

2.1. Empirical Review

2.1.1. Board Size and Sustainability Reporting Quality

Kilincarslan, Elmagrhi, and Li (2020) undertook a study to examine the influence of corporate governance structures on the practices of environmental disclosure in the Middle East and Africa (MEA) region. The research employed a panel dataset consisting of 121 publicly listed firms (excluding financial and utility companies) from 11 MEA countries, covering the period between 2010 and 2017. The study utilized various dependent variables and regression techniques, and it applied these methodologies to different sub-groups in order to enhance the reliability of the findings. The empirical outcomes of the study strongly indicated that gender diversity, board size, the presence of CEO/chairperson duality, and the size of the audit committee were positively associated with enhanced voluntary environmental disclosures among MEA firms. However, the presence of board independence exhibited a negative influence on these disclosures.

In a recent study, Rabi (2021) investigated the relationship between board of directors' characteristics and environmental disclosure in industrial businesses listed on the Amman Stock Exchange in Jordan. The primary objective of the study was to explore this link. The research conducted in this study spanned from 2014 to 2017 and focused on the analysis of 63 industrial businesses. The study included three primary variables, namely board size, board independence, and board ownership, with the control variable of business size. The research was conducted using panel data analysis, which allowed for testing the hypotheses formulated for the study. The study's findings uncovered a positive relationship between board size, board ownership, firm size, and the level of environmental disclosure.

Olayinka and Owolabi (2021) conducted an exploration into the impact of various dimensions of corporate governance on environmental sustainability reporting. The dimensions under investigation included board size, board independence, CEO duality, female directorship,

and board ownership. The research utilized an ex-post facto research design and focused on a population consisting of 169 publicly quoted companies listed on the Nigerian exchange group as of December 31, 2018. From this population, a sample of 42 quoted companies was selected using a combination of stratified and purposive sampling techniques. The study encompassed a span of 10 years, ranging from 2010 to 2019. The findings of the study brought to light several significant insights. Firstly, the research demonstrated that board size, board independence, and the presence of female directors exerted positive and significant effects on environmental sustainability reporting. Conversely, the study revealed that CEO duality had a positive but insignificant effect on environmental sustainability reporting.

In their research, Haladu and Bin-Nashwan (2022) examined the influence of environmental regulatory bodies' involvement in Nigeria on the characteristics of companies' sustainability reports. The study review data from 218 companies across 13 sectors of the Nigerian exchange group. The data collection for the analyses encompassed both primary and secondary sources from the years 2015 to 2019 to gather the requisite information. The research outcomes indicated a positive yet statistically insignificant correlation between primary corporate governance attributes and sustainability reporting.

2.1.2. Board Independence and Sustainability Reporting Quality

Ezekiel , Femi, Peace and Mofoluwake (2024) examined corporate governance practices and sustainability reporting quality of listed financial institutions in Nigeria. The research adopted the ordered probit and binary logistics research design, focusing on a population of 23 financial companies that were quoted in Nigeria as of December 31, 2021. From this population, a sample of 19 financial companies was selected, utilizing a combination of stratified and purposive sampling techniques. These selected companies had a track record spanning 10 years, from 2012 to 2021. The research employed a range of analytical techniques, including descriptive analysis and multiple regression analysis. The outcome of the study yielded significant findings showing that corporate governance mechanisms have a statistically significant influence on sustainability reporting quality. .

Corvino, Doni, and Bianchi-Martini (2020) conducted a study that examined how sustainability-related matters within a company's board of directors (BDs) influenced the disclosure of environmental information following the implementation of integrated reporting (IR). The empirical investigation encompassed the period spanning from 2010, which marked the initial adoption of IR in South Africa, to 2015, representing the earliest year of the release process concerning the King Code of Governance Principles for South Africa 2009. The data for the study were sourced from the Bloomberg database. The study's findings unveiled a positive association between the presence of a business ethics policy within the board of directors and the extent of firm environmental disclosure. Conversely, the study found that the presence of CEO duality did not exert any discernible impact on this form of corporate reporting.

In the research conducted by Diamastuti, Muafi, Fitri, and Faizaty (2021), an examination was carried out into the direct and indirect effects of the government's involvement, commitment within organizations, and media exposure on the disclosure of corporate social and environmental responsibility (CSERD) by 42 state-owned enterprises (SOEs) in Indonesia. This was accomplished through the utilization of strong corporate governance as an intermediary factor. The study's participant pool consisted of 42 directors from Indonesian state-owned

corporations. The outcomes revealed that the government's role, organizational commitment, and media exposure all directly influenced both effective corporate governance and the disclosure of corporate social responsibility.

Oyekale, Olaoye, and Nwaobia (2022) conducted a study to explore how corporate governance influences the disclosure of environmental sustainability by non-financial companies listed in Nigeria. The research adopted an ex-post facto research design, focusing on a population of 109 non-financial companies that were quoted in Nigeria as of December 31, 2020. From this population, a sample of 72 non-financial companies was selected, utilizing a combination of stratified and purposive sampling techniques. These selected companies had a track record spanning 9 years, from 2012 to 2020. The research employed a range of analytical techniques, including descriptive analysis and multiple regression analysis. The outcomes of the study yielded significant findings. Specifically, the study identified that factors such as Board Independence, Nomination Committee, and Sustainability Responsibility Committee had positive and statistically significant effects on the disclosure of environmental sustainability. The study ultimately concluded that corporate governance played a role in enhancing the environmental sustainability disclosure practices of non-financial companies listed in Nigeria.

2.1.3. Board Gender Diversity and Sustainability Reporting Quality

Khaireddine, Salhi, Aljabr, and Jarboui (2020) undertook an investigation with the aim of assessing the influence of board characteristics on governance, environmental, and ethical disclosure. The study considered attributes of boards including the frequency of meetings, the duality of CEO/chair roles, the size of the board, the diversity of gender, and the degree of independence from management. The research sample encompassed 82 companies that were listed on the SBF120 index in France between 2012 and 2017. The results of the study indicated that board independence, gender diversity within boards, and the frequency of board meetings all exhibited a positive and significant effect on governance, environmental, and ethical disclosure. Among these factors, the only one showing a noteworthy and favorable relationship with board size was corporate environmental disclosure.

Mawardani and Harymawan (2021) examined the extent of integrated reporting information disclosure within the annual reports of non-financial public companies listed on the Indonesia Stock Exchange (IDX) during the period from 2017 to 2018. These governance aspects encompassed the presence of an independent board, the size of the board, the diversity of genders within the board, and the type of external audit firm engaged, categorized as either a Big-4 accounting public firm or a non-Big-4 accounting public firm. To conduct the research, the authors gathered a total of 936 observations. The analysis methodology employed in the study was the Ordinary Least Square (OLS) Regression. The research's outcomes revealed several significant findings. Specifically, the study showed that companies with a greater number of independent board members and a larger board size tended to disclose a higher level of integrated reporting information in their annual reports. However, the study did not identify any substantial correlation between the diversity of genders within the board and the level of integrated reporting information disclosure.

Giron, Kazemikhasragh, Cicchiello, and Panetti (2022) undertook a study with the primary objective of examining the influential company characteristics that drive the adoption of sustainability reporting practices. The research utilized a Logit model and focused on a sample of

366 sizable companies situated in Asian and African regions. These companies had incorporated the Sustainable Development Goals (SDGs) into their sustainability reports, with the data stemming from the year 2017. The study's findings shed light on several noteworthy insights. Firstly, the results indicated that large companies located in low- and middle-income countries, which integrated the SDGs into their sustainability reports, exhibited distinct characteristics. These included a higher market-to-book value, commonly known as Tobin's q, which is indicative of market perception, as well as a greater propensity to adopt external assurance for their sustainability reports. Furthermore, the study revealed that the presence of women and younger directors within a company's management structure was positively associated with the adoption of SDG reporting practices.

With regard to corporate sustainable reporting in the context of listed oil and gas companies in Nigeria, Onyali, Eze, and Okerekeoti (2022) conducted a study with the aim of examining the connections between the presence of foreign directors on boards, board ethnicity, and board gender diversity. Three research hypotheses served as a guide for the investigation. Ex-post facto research design was used by the researchers for this investigation. The study's sample included each of the ten oil and gas companies that were listed on the Nigerian Stock Exchange as of June 2022. Six of these companies were chosen for the research from among them based on the accessibility of their audited annual reports and accounts for the years 2010 to 2019. The researchers used the Ordinary Least Squares (OLS) simple regression to test their hypotheses, and the study's results showed that neither board gender diversity nor ethnic diversity on the board had a significant influence on corporate sustainability reporting for the listed oil and gas corporations in Nigeria.

2.1.4. Board Financial Expertise and Sustainability Reporting Quality

Umukoro, Uwuigbe, Uwuigbe, Adegboye, Ajetunmobi, and Nwaze (2019) investigated the influence that environmentally conscious, certified, and finaicial experience board members have on the publication of sustainability reports. The research was conducted from 2014 to 2016 and focused on ten Nigerian deposit money banks using static panel data regression estimators. The time period covered was from 2014 to 2016. The outcomes of the study revealed that board members with higher levels of education had an overall positive influence on the disclosure of sustainability reports. This influence persisted even after accounting for corporate administration and firm-level characteristics. Furthermore, the study indicated that both executive and non-executive directors exhibited limited experience in environmental matters, which resulted in an insignificant effect on the disclosure of sustainability reporting.

In their research, Erin, Adegboye, and Bamigboye (2021) looked at the relationship between corporate governance and the level of sustainability reporting provided by publicly traded firms in Nigeria. Specifically, they were interested in determining whether or not there was a link between the two. The approach of ordered logistic regression is used in this research project, which focuses on 120 companies that are listed on the Nigerian Exchange Group. The results of the research indicate that there may be a significant correlation between the size of a company's board of directors, the proportion of board members who are women, the financial experience of board members, the number of audit committees, and the quality of sustainability reports.

The investigation carried out by Kumo, Hamid, and Sahdan (2023) explored the intricate interconnection between environmental policies and their influence on governance and sustainable practices within Nigerian listed firms. The study employed a quantitative methodology to examine the enterprises that were assessed and ranked by the Nigerian World CSR Consensus rating system, encompassing both financial and non-financial sectors. The outcomes reveal that only a mere 26 corporations actively participated in initiatives related to corporate social responsibility (CSR). Noteworthy among these is Access Bank, which achieved an impressive rating of 99%, while UAC Nigeria Plc garnered a significantly lower score of only 1%. Additionally, it's important to highlight that out of a total of 156 publicly traded companies in Nigeria; only 90 underwent assessment and obtained recognition from CSRHUB. This statistic underscores the minimal proportion of companies engaged in these activities.

The research conducted by Githaiga and Kosgei (2023) centered on examining the relationship between board characteristics and sustainability reporting within listed firms in East Africa. The study employed a sample of 79 firms over the years 2011 to 2020 and employed the Global Reporting Initiative framework to measure sustainability reporting. The outcomes highlighted the varying impact of different board characteristics on sustainability reporting, with board gender diversity, board financial expertise, and board independence showing positive relationships, while board size exhibited a negative association.

2.1.5. Audit Committee Size and Sustainability Reporting Quality

The research undertaken by Buallay and AlDhaen (2018) delved into the intricate relationship between Audit Committee characteristics and sustainability report disclosure within Gulf Cooperation Council countries. The study focused on listed banks over a five-year period (2013-2017) and identified the positive effects of Audit Committee size, member independence, and meeting frequency, while revealing a negative impact associated with the financial expertise of Audit Committee members on the level of sustainability report disclosure among the studied banks.

Osemene and Fagbemi (2019) did a research in which they investigated the influence of a number of parameters, some of which were board size, board independence, ownership concentration, female participation on the board, CEO duality, and the existence of an independent audit committee. Both descriptive and inferential statistics were used in the process of analyzing the secondary data that was gathered from the annual reports of the 20 firms that manufacture consumer products. The research led to the discovery of a significant relationship between board size, board independence, ownership concentration, female participation on the board, CEO duality, and the existence of an audit committee and environmental reporting.

A research was undertaken by Adegboye, Ojeka, Alabi, Alo, and Aina (2020) with the objective of comprehending the influence of audit committee characteristics on sustainability disclosure in Nigerian listed banks. The study utilized the Fixed Effect regression estimator to analyze panel data from 10 listed banks in Nigeria, spanning the years 2014 to 2016. The research outcomes provided valuable insights into the relationships under scrutiny. Specifically, the study found that certain audit committee characteristics exerted notable influences on sustainability disclosure among the examined Nigerian listed banks. Audit committee independence and gender diversity within the audit committee were identified as significantly

positive factors associated with sustainability disclosure. On the contrary, the magnitude or size of the audit committee exhibited a negative and significant influence on sustainability disclosure.

In their empirical study, Ika, Nugroho, Achmad, and Widagdo (2021) conducted an examination of the influence exerted by corporate governance procedures on the phenomenon of environmental reporting. The study employed corporate governance variables such as audit committee effectiveness, board size, and ownership concentration. A sample of 306 business observations was obtained by selecting 102 manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the years 2015 and 2017. By utilizing data panel regression analysis, the findings of the study revealed a favorable relationship between audit committee performance and board size with environmental reporting. The findings of this study indicate a positive relationship between the effectiveness of the audit committee and the number of commissioners in a firm, and the level of encouragement for the inclusion of environmental information in the company's annual report.

The impact of Audit committee effectiveness (ACE), internal audit function (IAF) on sustainability reporting was investigated by Tumwebaze, Bananuka, Kaawaase, Bonareri, and Mutesasira (2022). A cross-sectional and correlational approach was taken for this study. Forty-eight Ugandan financial service providers provided suitable questionnaires for analysis. The study revealed significant and positive associations between both audit committee effectiveness and the internal audit function, and sustainability reporting practices. The study highlighted that these two aspects, ACE and IAF, were more strongly and significantly linked to economic and social indicators as compared to environmental sustainability indicators.

2.2 Theoretical Framework

2.2.1 Resource Dependency Theory (RDT)

Resource Dependency Theory (RDT), formulated by Pfeffer and Salancik during the 1970s, elucidates the manner in which organizations engage with their external surroundings to acquire vital resources such as capital, information, expertise, and legitimacy. These resources are imperative for the organization's sustenance and prosperity (Nemati, et al., 2010). RDT posits that organizations are impacted by their imperative to obtain these essential resources, which subsequently shapes their behavior. RDT, in the context of corporate governance and sustainability reporting quality, it offers valuable insights into how firms effectively handle their reliance on stakeholders, rules, and public expectations in order to sustain their operations and retain a favorable reputation (Abid, et al., 2015; Rabi, 2021). In Nigeria, organizations operating in resource-intensive sectors such as industrial goods and oil and gas must effectively handle their interactions with different stakeholders and comply with changing regulatory frameworks, as there is a growing emphasis on corporate responsibility and sustainability (Osemene & Fagbemi, 2019).

2.2.2 Stakeholder Theory

Stakeholder theory is a harmonizing rather than a contradictory body of literature which is considered as a necessary process in operationalizing corporate social responsibility reporting also known as sustainability reporting (Matten, Crane & Chapple, 2023). The theory asserts that businesses can be understood as a set of relationships among groups which have a stake in the activities of that business (Visser, Matten, Pohi & Tolhurst).

Stakeholder governance demands the recognition of the interest of the different stakeholders, who have a stake or interest in the affairs of an entity, and to preserve, protect and respect those interests, to ensure that they get the benefit to which they are entitled. Several documents have identified key stakeholders: Robert Trueblood Report (1973) USA, CBN Corporate Governance Code, the SEC Code of Corporate Governance

2.2.3 Signaling Theory

Signaling theory, applied to corporate governance, examines how firms communicate information to stakeholders through various signals, influencing their perceptions and decisions. It has three models: (1.) Spence's Signaling Model (1973): Firms signal quality to differentiate themselves. (2.) Ross's Signaling Model (1977): Managers signal private information to investors. (3.) Agency Theory: Signaling mitigates agency conflicts between managers and shareholders

3.0 Methodology

3.1 Research Design

The study employed an ex-facto research design, which facilitated the observation and collection of data on various factors without intervention. This methodology was deemed appropriate due to its capacity to make multiple observations of the same variables (firms) over extended periods, whether short or long. The population of this study encompasses the entire 30 (thirty) firms in the industrial goods sector, the oil and gas sector and the construction/real estate sector listed firms on the Nigerian Exchange Group as at December 31st, 2023 (Nigerian Exchange Group, 2023). The census sampling technique was used. The sample size is the entire population of thirty (30) firms. The study relied on secondary data obtained from the annual reports of all thirty (30) companies in the sample. The pertinent cross-sectional (panel) data was extracted from annual reports spanning the years 2013 to 2023 of these companies.

3.2 Method of Data Analysis

The ordered logistic regression model was employed to examine the influence of variables in this study in order to examine the impact of corporate governance on sustainability reporting quality of listed firms in Nigeria.

3.3 Model Specification

The study adapted the model developed by Shuaibu, Muhammad and Isah (2019) given as;

DIS = f (SIZE, IND, MEE, FSIZE) - - - - - - *(i)*

Where;

DIS= disclosure of environmental and sustainability information.
SIZE = Board size
IND = Board independence
MEE = Board meetings
FSIZE = Firm Size

The variables introduced were board gender diversity, board financial expertise and audit committee size and two control variables which are financial performance and firm size, thus given as;

SUS = f (SIZE, IND, DIV, FIN, AUD, ROE, FSIZE) - - - - - - *(ii)*

Where;
SUS = Sustainability Reporting Quality;
SIZE = Board size
IND = Board independence
DIV = Board gender diversity
FIN = Board financial expertise
AUD = Audit committee size
Control Variable
ROE = Financial performance
FSIZE = Firm Size
Equation (i) is expressed in mathematical form and cannot be estimated in this form. In other to make it compliant for a regression analysis and estimation, equation (i) is expressed linearly/econometrically as follows:

$$SUS_{it} = a_0 + a_1 SIZE_{it} + a_2 IND_{it} + a_3 DIV_{it} + a_4 FIN_{it} + a_5 AUD_{it} + a_6 ROE_{it} + a_7 FSIZE_{it} + \varepsilon_{it} \quad -- \quad (ii)$$

Where:

i = total number of sampled firms.

t = year 2013 to 2022 for each of the sampled firms.

$a_1 - a_7$ are variables coefficients to be estimated.

ε is the stochastic element

Apriori Expectation

The apriori expectations are:

$\alpha_1 - \alpha_7 > 0$.

Operationalisation and Definition of Variables

S/ No	Variables	Proxy	Measurement	Apriori Sign	Source
	Dependent				
1	Sustainability Reporting Quality	SUS	A scoring system ranging from 0 to 4: 0 denotes the absence of a sustainability report; 1 indicates the presence of a sustainability report; 2 signifies the existence of a sustainability committee; 3 is assigned when a sustainability report is assured by a non-audit firm; and 4 is assigned when a sustainability report is assured by a Big 4 audit firm.	Nil	Erin, Adegboye, and Bamigboye (2021)
	Independent				
1	Board Size	SIZE	Measured by the total number of directors serving on the board as reported in the annual reports.	β >0=+	Ezhilarasi and Kabra (2017)

2	Board Independence	IND	As a percentage of non-executive directors to the total number of directors.	β>0+	Khaireddine, Salhi, Aljabr, and Jarboui (2020)
3	Board Gender Diversity	DIV	Measured by analyzing the percentage of Female directors to the total number of directors.	β>0+	Giron, Kazemikhasragh

4	Board financial expertise	FIN	Expressed in binary form, the variable takes the value of 1 when a director possesses professional accounting qualifications such as ICAN or ACCA certification, holds an MBA degree, or possesses a minimum of 10 years of relevant financial experience. The variable assumes a value of 0 in cases where these criteria are not met by the director.	β>0+	Authors measurement
5	Audit committee size	AUD	Measured by the total number of members on the audit committee.	β>0+	Odoemelam and Okafor (2018)
	Control Variable				
6	Financial Performance	ROE	Net Income/Shareholders Equity	β>0+	Aifuwa (2020)
7	Firm Size	FSIZE	Total net assets of the company	β>0+	Aifuwa (2020)

Source: Author's compilation (2023).

4.0 Data Presentation, Analysis and Interpretation of Results

4.1. Data Analysis

The results of an array of statistical analyses carried out to determine the parameters are shown below. An empirical test is similarly carried out and reported in this section as well.

4.2 Descriptive Statistics

Table 4.1. Descriptive Statistics

	SUS	SIZE	IND	DIV	FIN	AUD	ROE	FSIZE
Mean	0.80	7.10	0.18	0.11	0.14	4.37	-0.04	3.39E+08
Std. Dev.	0.90	4.09	0.17	0.13	0.12	2.28	15.37	2.12E+09
Skewness	0.66	0.01	1.35	1.26	0.98	-1.03	7.77	7.683404
Kurtosis	2.19	3.01	4.408	5.49	4.46	2.52	150.16	61.38207
Jarque-Bera	30.52	0.02	117.02	157.89	75.44	56.82	273738.6	45557.56
Probability	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.000000

Sum Sq. Dev.	243.39	5002.58	9.51	5.71	4.31	1554.43	70656.41	1.35E+21
Observations	300	300	300	300	300	300	300	300

Source: Authors computation from E-views 10 output (2023).

The mean and standard deviation provide insights into the dataset's central tendencies and variability, respectively. The mean values range from 0.80 for "sustainability reporting quality" (SUS) to -0.04 for "return on equity" (ROE). On average, companies exhibit a positive sustainability reporting quality mean value of 0.80, with a high standard deviation pointing to diverse reporting quality levels. The average board size is 7.10 with a moderate standard deviation of 4.09. Most firms have a positive proportion of women on their boards, with some variation.

4.3. Correlation Analysis

Table 4.2 presents the correlation matrices for the study's primary variables; the probabilities are shown in parenthesis.

Table 4.2. Correlation Analysis

	SUS	SIZE	IND	DIV	FIN	AUD	ROE	FSIZE
SUS	1.00							

SIZE	0.56	1.00						
	(0.00)	-----						
IND	0.56	0.41	1.00					
	(0.00)	(0.00)	-----					
DIV	0.17	0.30	0.19	1.00				
	(0.00)	(0.00)	(0.00)	-----				
FIN	0.67	0.35	0.51	0.39	1.00			
	(0.00)	(0.00)	(0.00)	(0.00)	-----			
AUD	0.57	0.73	0.37	0.45	0.48	1.00		
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	-----		
ROE	0.00	0.00	-0.01	-0.01	-0.01	0.00	1.00	
	(0.96)	(0.98)	(0.89)	(0.90)	(0.88)	(0.97)	-----	
FSIZE	0.34	0.07	-0.03	0.00	0.33	0.16	0.00	1.00

(0.00)	(0.26)	(0.55)	(0.96)	(0.00)	(0.00)	(0.98)	-----

Probability values in ( )

Source: Authors computation from E-views 10 output (2023).

The analysis reveals several significant correlations among variables. Higher sustainability reporting quality correlates positively with larger board sizes, more board independence, greater financial expertise, larger audit committees, and, to a lesser extent, larger firm sizes. However, the relationship with board gender diversity is relatively weak. Larger board sizes associate with more board independence, greater board gender diversity, higher financial expertise, larger audit committees, and larger firm sizes. Board independence correlates positively with board gender diversity, financial expertise, and audit committee size. Financial expertise on boards correlates with larger audit committees. Financial performance shows no meaningful correlations, while firm size correlates positively with board and audit committee sizes.

4.4. Ordered Logistic Regression

Table 4.3. Ordered Logistic Regression

Variable	**Beta Coeffcient**	**Z-statistic**	**P.value**
SIZE	0.0191	1.5109	0.1103
IND	0.1103	1.2340	0.1235
DIV	0.1232	0.1270	0.0253
FIN	0.0811	0.1543	0.1751
AUD	0.0153	2.1340	0.0010
ROE	-0.0001	-0.1234	0.2454
FSIZE	-2.9114	-0.3548	0.1822
C	-10.36	-1.50	0.13
Diagnostics			
McFadden R-squared	0.43		
LR statistic	0.49		
Prob(LR statistic)	47.4(0.00)		

Source: Authors computation (2024)

4.5 Test of Hypotheses

Hypothesis One: ***Board size has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Size (SIZE) is positive (0.0191), suggesting a potential positive relationship between board size and sustainability reporting quality. However, the associated p-value (0.1103) is not statistically significant at the 1% or 5% level. Therefore, the null hypothesis, which posits that board size has no significant effect on sustainability reporting quality, cannot be rejected. Thus, it is accepted that "board size has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Two: Board independence has no significant effect on sustainability reporting quality of listed firms in Nigeria.

For Board Independence (IND), the positive coefficient (0.1103) is not statistically significant at any level, with a p-value of 0.1235. Consequently, the null hypothesis cannot be rejected. Thus, it is concluded that "board independence has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Three: ***Board gender diversity has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Gender Diversity (DIV) is positive (0.1232) and statistically significant at the 5% level (p-value = 0.0253). Therefore, the null hypothesis is rejected, indicating that "board gender diversity has a significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Four: ***Board financial expertise has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Financial Expertise (FIN) is positive (0.0811) but not statistically significant (p-value = 0.1751). As a result, the null hypothesis cannot be rejected, and it is stated that "board financial expertise has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Five: Audit committee size has no significant effect on sustainability reporting quality of listed firms in Nigeria.

The relationship between Audit Committee Size (AUD) and Sustainability Reporting Quality is found to be positive and statistically significant at the 1% level (p-value = 0.0010). Therefore, the null hypothesis is rejected, indicating that "audit committee size has a significant effect on sustainability reporting quality of listed firms in Nigeria."

4.6 Discussion of Findings.

4.6.1. Board Size and Sustainability Reporting Quality

The empirical results for board size (0.0191) are positive but not statistically significant (prob. = 0.1103), suggesting that in the context of Nigerian corporate governance, board size may not have a significant effect on sustainability reporting quality. This result is in agreement with the findings of Bakar, Ghazali and Ahmad (2019), Ezhilarasi and Kabra (2017), Haladu and Bin-Nashwan (2022), Herda, Taylor and Winterbotham (2012), Kumo, Hamid, and Sahdan (2023) and Osemene and Fagbemi (2019). This implies that organizations in Nigeria may not need to focus extensively on altering board size as a strategy to enhance sustainability reporting quality instead, they could consider other factors, such as the composition of the board or the implementation of effective reporting frameworks to improve sustainability reporting quality.

4.6.2. Board Independence and Sustainability Reporting Quality

Like with board size, the coefficient for board independence (0.11) is positive, but the result is not statistically significant (Prob. = 0.1235). This implies that, based on the data, there may not be a significant relationship between board independence and sustainability reporting quality in Nigerian listed firms. However, it is important to note that this result may be influenced by other factors not considered in the analysis. The findings of Buallay and AlDhaen (2018), Ezhilarasi and Kabra (2017), Githaiga and Kosgei (2023), Ofoegbu, Odoemelam, and Okafor (2018) and Osemene and Fagbemi (2019) are seen to be related to the findings of this study.

4.6.3. Board Gender Diversity and Sustainability Reporting Quality

The results related to board gender diversity (0.1232) is positive and statistically significant (Prob. = 0.0253), suggesting that the gender diversity of the board may significantly impact "sustainability reporting quality in Nigerian listed firms". The result of this study defers from the findings of Bakar, Ghazali and Ahmad (2019) and Githaiga and Kosgei (2023), but similar to that of Kilincarslan, Elmagrhi and Li (2020) and Mawardani and Harymawan (2021

4.6.4. Board Financial Expertise and Sustainability Reporting Quality

With respect to board financial expertise, results revealed a positive (0.0811) but statistically insignificant (p-value = 0.1751) relationship, indicating that having financial expertise on the board may not significantly influence sustainability reporting quality. The absence of statistical significance does not negate the potential importance of financial expertise on the board. The findings of this study are similar to that of Erin, Adegboye, and Bamigboye (2021), Githaiga and Kosgei (2023), Haladu and Bin-Nashwan (2022), Kumo, Hamid, and Sahdan (2023) and Oyekale, Olaoye and Nwaobia (2022).

4.6.5. Audit Committee Size and Sustainability Reporting Quality

Lastly, audit committee size revealed a positive and statistically significant relationship (p-value = 0.0010) with sustainability reporting quality in Nigerian listed firms. In practical terms, the finding suggests that, based on the data and the statistical tests conducted, there is strong evidence to conclude that larger audit committee size has a significant positive impact on sustainability reporting quality in Nigerian listed firms. The significant relationship highlights the importance of the size of the audit committee in influencing sustainability reporting practices. Larger audit committees may provide more effective oversight, accountability, and expertise in ensuring high-quality sustainability reporting. These findings are contrary to that of Kilincarslan, Elmagrhi and Li (2020), Odoemelam and Okafor (2018) and Onyali, Eze and Okerekeoti (2022), but agree with the results from Adegboye, Ojeka, Alabi, Alo and Aina (2020), Buallay and AlDhaen (2018), Ika, Nugroho, Achmad and Widagdo (2021) and Tumwebaze, Bananuka, Kaawaase, Bonareri and Mutesasira (2022).

5.0 Summary of Findings

The study investigated the relationship between corporate governance and sustainability reporting quality of listed firms in Nigeria. In general, corporate governance was observed not to have influenced the sustainability reporting quality of listed firms in Nigeria with the exemption of two variables. Specific findings are that:

1. A positive but insignificant correlation exists between Board size and sustainability reporting quality of listed firms in Nigeria.
2. There is an insignificant positive correlation between the degree of board independence and sustainability reporting quality among listed firms in Nigeria.
3. There is a significant and positive correlation between board gender diversity and sustainability reporting quality among listed firms in Nigeria.
4. The financial expertise of the board has a statistically insignificant positive correlation with sustainability reporting quality among listed firms in Nigeria.
5. Audit committee size has a significant positive relationship with the sustainability reporting quality of listed firms in Nigeria.

5.1 Conclusion and Recommendations

Based on the research findings, the study concludes that board gender diversity and audit committee size have significant positive relationship with the sustainability reporting quality of listed firms in Nigeria while other corporate governance attributes such as board size, board independence and board financial expertise have no significant association.

Based on the conclusion of the study, below are the recommendations:

i. Although board size on sustainability reporting quality was insignificant, firms should prioritize the optimization of board membership to guarantee a wide range of skills and knowledge.
ii. Board independence was positive yet insignificant but organizations may delve deeper into fostering effective decision-making that could enhance sustainability reporting quality.

iii. Board gender diversity should be encouraged due to its positive significant association with sustainability reporting quality.
iv. The financial expertise of the board has a statistically insignificant positive correlation with sustainability reporting quality among listed firms in Nigeria.
v. Audit committee size has a significant positive relationship with the sustainability reporting quality of listed firms in Nigeria.

6. Contribution to Future Research

By offering detailed insights into the relationship between corporate governance and sustainability reporting quality in the Nigerian context, this research adds to the body of current knowledge. It evaluated corporate governance and sustainability reporting quality and provided a thorough study across a variety of industries by filling the vacuum left by earlier studies which often concentrated on a specific industry.

References

Abdulsalam, N., & Babangida, M. A. (2020). Effect of sales and firm size on sustainability reporting practice of oil and gas companies in Nigeria. *Quest Journals Journal of Research in Business and Management*, *8*(1), 2347-3002. https://d1wqtxts1xzle7.cloudfront.net/62822703/A0801010820200404-

Abid, G., Khan, B., Rafiq, Z., & Ahmed, A. (2015). Theoretical perspectives of corporate governance. *Bulletin for Business and Economics,* 3(4), 166-175. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2548941

Adegboye, A., Ojeka, S., Alabi, O., Alo, U., & Aina, A. (2020). Audit committee characteristics and sustainability performance in Nigerian listed banks. *Business: Theory and Practice*, *21*(2), 469-476. https://www.ceeol.com/search/article-detail?id=950907

Adel, C., Hussain, M. M., Mohamed, E. K., & Basuony, M. A. (2019). Is corporate governance relevant to the quality of corporate social responsibility disclosure in large European companies? *International Journal of Accounting & Information Management*, *27*(2), 301-332. https://www.emerald.com/insight/content/doi/10.1108/IJAIM-10-2017-0118/full/html

Aifuwa, H. O. (2020). Sustainability reporting and firm performance in developing climes: A review of literature. *Copernican Journal of Finance & Accounting, 9(1),* 9-29. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3665238

Al-Shaer, H., Salama, A., & Toms, S. (2017). Audit committees and financial reporting quality: Evidence from UK environmental accounting disclosures. *Journal of Applied Accounting Research*, *18*(1), 2-21. https://www.emerald.com/insight/content/doi/10.1108/JAAR-10-2014-0114/full/html

Aliyu, U. S. (2019). Board characteristic and corporate environmental reporting in Nigeria. *Asian Journal of Accounting Research*, *4*(1), 2-17. https://www.emerald.com/insight/content/doi/10.1108/AJAR-09-2018-0030/full/html

Amran, A., Lee, S. P., & Devi, S. S. (2014). The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality. *Business Strategy and the environment*, *23*(4), 217-235. https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.1767

Baalouch, F., Ayadi, S. D., & Hussainey, K. (2019). A study of the determinants of environmental disclosure quality: evidence from French listed companies. *Journal of Management and Governance*, *23*, 939-971. https://link.springer.com/article/10.1007/s10997-019-09474-0

Bakar, A. B., Ghazali, N. A., & Ahmad, M. B. (2019). Sustainability reporting and board diversity in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *9*(3), 91-99. http://dx.doi.org/10.6007/IJARBSS/v9-i3/5663. DOI: 10.6007/IJARBSS/v9-i3/5663.

Buallay, A. M., & AlDhaen, E. S. (2018). The relationship between audit committee characteristics and the level of sustainability report disclosure. *In Challenges and Opportunities in the Digital Era: 17th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2018, Kuwait City, Kuwait, October 30–November 1, 2018, Proceedings 17*. 492-503. https://link.springer.com/chapter/10.1007/978-3-030-02131-3_44

Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies*, *26*(3), 1176-1248. https://link.springer.com/article/10.1007/S11142-021-09609-5

Corvino, A., Doni, F., & Bianchi-Martini, S. (2020). Corporate governance, integrated reporting and environmental disclosure: Evidence from the South African context. *Sustainability*, *12*(12), 4820. https://www.mdpi.com/2071-1050/12/12/4820

Diamastuti, E., Muafi, M., Fitri, A., & Faizaty, N. E. (2021). The role of corporate governance in the corporate social and environmental responsibility disclosure. *The Journal of Asian Finance, Economics and Business*, *8*(1), 187-198. https://uisi.ac.id/assets/upload/media/9b5b4784ca6f97b3baa1b4588d3ef3c5.pdf

Erin, O., Adegboye, A., & Bamigboye, O. A. (2021). Corporate governance and sustainability reporting quality: evidence from Nigeria. *Sustainability Accounting, Management and Policy Journal*, *13*(3), 680-707. https://www.emerald.com/insight/content/doi/10.1108/SAMPJ-06-2020-0185/full/html

Ezhilarasi, G., & Kabra, K. C. (2017). The impact of corporate governance attributes on environmental disclosures: Evidence from India. *Indian Journal of Corporate Governance*, *10*(2), 24-43. DOI: 10.1177/0974686217701464

Farisyi, S., Musadieq, M. A., Utami, H. N., & Damayanti, C. R. (2022). A systematic literature review: Determinants of Sustainability Reporting in developing countries. *Sustainability*, *14*(16), 10222. https://www.mdpi.com/2071-1050/14/16/10222

Fortuna, F., Testarmata, S., Sergiacomi, S., & Ciaburri, M. (2020). Mandatory disclosure of non-financial information: A structured literature review. *Accounting, Accountability and Society: Trends and Perspectives in Reporting, Management and Governance for Sustainability*, 95-128. https://link.springer.com/chapter/10.1007/978-3-030-41142-8_6

Giron, A., Kazemikhasragh, A., Cicchiello, A. F., & Panetti, E. (2022). Company characteristics and sustainability reporting: evidence from Asia and Africa. *International Journal of Social Ecology and Sustainable Development (IJSESD)*, *13*(1), 1-18. https://www.igi-global.com/article/company-characteristics-and-sustainability-reporting/290309

Githaiga, P. N., & Kosgei, J. K. (2023). Board characteristics and sustainability reporting: a case of listed firms in East Africa. *Corporate Governance: The International Journal of Business in Society*, *23*(1), 3-17. https://www.emerald.com/insight/content/doi/10.1108/CG-12-2021-0449/full/html

Haladu, A., & Bin-Nashwan, S. A. (2022). The moderating effect of environmental agencies on firms' sustainability reporting in Nigeria. *Social Responsibility Journal*, *18*(2). 388-402. https://www.emerald.com/insight/content/doi/10.1108/SRJ-07-2020-0292/full/html

Herda, D. N., Taylor, M. E., & Winterbotham, G. (2012). The effect of board independence on the sustainability reporting practices of large US firms. *Issues in Social & Environmental Accounting*, *6*. 35-41. https://pdfs.semanticscholar.org/19ef/46a8bde765d90c96d79d4ec9cf88660533d5.pdf

Hidayah, N., Badawi, A., & Nugroho, L. (2019). Factors affecting the disclosure of sustainability reporting. *International Journal of Commerce and Finance*, *5*(2), 219-229. https://ijcf.ticaret.edu.tr/index.php/ijcf/article/view/115

Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of management*, *35*(6), 1404-1427. https://journals.sagepub.com/doi/abs/10.1177/0149206309343469

Ika, S. R., Nugroho, J. P., Achmad, N., & Widagdo, A. K. (2021). The impact of corporate governance on environmental reporting: Evidence from the Indonesian manufacturing

industry. In *IOP Conference Series: Earth and Environmental Science*. 739(1), 30. https://iopscience.iop.org/article/10.1088/1755-1315/739/1/012030/meta

Iliemena, R. O., Amedu, M. J. A., & Uagbale-Ekatah, R. E. (2023). Empirical examination of sustainability reporting, return on capital employed and gross profit margin. *European Journal of Sustainable Development Research*, *7*(1). https://d1wqtxts1xzle7.cloudfront.net/104700179/empirical-examination-of-sustainability-reporting-return-on-capital-employed-and-gross-profit-margin-12539-libre.pdf?

Jadoon, I. A., Ali, A., Ayub, U., Tahir, M., & Mumtaz, R. (2021). The impact of sustainability reporting quality on the value relevance of corporate sustainability performance. *Sustainable Development*, *29*(1), 155-175. https://onlinelibrary.wiley.com/doi/abs/10.1002/sd.2138

Kılıç, M., & Kuzey, C. (2017). Factors influencing sustainability reporting: evidence from Turkey. *Available at SSRN 3098812*. 45-51. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3098812

Kilincarslan, E., Elmagrhi, M. H., & Li, Z. (2020). Impact of governance structures on environmental disclosures in the Middle East and Africa. *Corporate Governance: The International Journal of Business in Society*, *20*(4), 739-763. https://www.emerald.com/insight/content/doi/10.1108/CG-08-2019-0250/full/html

Khaireddine, H., Salhi, B., Aljabr, J., & Jarboui, A. (2020). Impact of board characteristics on governance, environmental and ethical disclosure. *Society and Business Review*, *15*(3), 273-295. https://www.emerald.com/insight/content/doi/10.1108/SBR-05-2019-0067/full/html

Kumo, U. A., Hamid, F. Z. A., & Sahdan, M. H. (2023). The role of environmental policy in influencing governance and sustainability practices among Nigerian quoted companies: a proposed framework. *International Journal of Professional Business Review*, *8*(7), 2648-2648. https://dialnet.unirioja.es/servlet/articulo?codigo=9060816

Matten, D., Crane, A.,&Chapple, W.(2003). Behind the mask:Reavealing the true face of corporate citizenship.*Journal of Business Ethics, 45(1), 109-120.*

Mawardani, H. A., & Harymawan, I. (2021). The relationship between corporate governance and integrated reporting. *Journal of Accounting and Investment*, *22*(1), 51-79. https://journal.umy.ac.id/index.php/ai/article/view/9694

Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: evidence from Australian securities exchange listed

firms. *Journal of Cleaner Production*, *149*, 874-885. https://www.sciencedirect.com/science/article/abs/pii/S0959652617303670

Nemati, A. R., Bhatti, A. M., Maqsal, M., Mansoor, I., & Naveed, F. (2010). Impact of resource based view and resource dependence theory on strategic decision making. *International journal of business and management,* 5(12), 110. https://pdfs.semanticscholar.org/a567/9d05703cdf8dce934cd8c7557e2c1c4dde34.pdf

Nigerian Exchange Group (2023). Nigerian Exchange Group. Available online: https://ngxgroup.com/exchange/trade/equities/listed-companies/ [Accessed; 27 August, 2023].

Odoemelam, N., & Okafor, R. G. (2018). The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management*, *2*(1), 25-49. http://www.ijsam.org/index.php/ijsam/article/view/47

Okere, W., Rufai, O., Okeke, O. C., & Oyinloye, J. B. (2021). Board characteristics and environmental information disclosure of listed manufacturing firms in Nigeria. *Journal of Business and Entrepreneurship*, *9*(2), 82-93. https://ojs.sampoernauniversity.ac.id/index.php/jobe/article/view/214

Olayinka, O. M., & Owolabi, S. A. (2021). Corporate governance and environmental sustainability reporting: The Nigerian perspective. *International Journal of Scientific and Research Publications*, *11*(4), 487-497. DOI: 10.29322/IJSRP.11.04.2021.p11266. http://dx.doi.org/10.29322/IJSRP.11.04.2021.p11266

Onoja, A. A., Okoye, E. I., & Nwoye, U. J. (2021). Global reporting initiative and sustainability reporting practices: a study of Nigeria and South Africa oil and gas firms. *Res. J. Manag. Pract*, *2782*, 5-10. https://www.ijaar.org/articles/rjmp/v1n12/Global-Reporting-Initiative-and-Sustainability-Reporting-Practices-A-Study-of-Nigeria-and-South-Africa-Oil-and-Gas-Firms.pdf

Onyali, C. I., Eze, M. A. R. I. A., & Okerekeoti, C. U. (2022). Board composition and corporate environmental investment: a study of listed oil and gas firms in Nigeria. *Journal of Research in Business and Management*, *10*(7), 37-47. https://www.researchgate.net/profile/Onyali-Innocent/publication/362067334_Board_Composition_And_Corporate_Environmental_InvestmentA_Study_Of_Listed_Oil_And_Gas_Firms_In_Nigeria/links/62d50ed4a6abd57c6aeeac4a/Board-Composition-And-Corporate-Environmental-InvestmentA-Study-Of-Listed-Oil-And-Gas-Firms-In-Nigeria.pdf

Ofoegbu, G. N., Odoemelam, N., & Okafor, R. G. (2018). Corporate board characteristics and environmental disclosure quantity: Evidence from South Africa (integrated reporting) and Nigeria (traditional reporting). *Cogent Business & Management*, *5*(1). 85-101. https://www.tandfonline.com/doi/full/10.1080/23311975.2018.1551510

Osazuwa, N. P., Che-Ahmad, A., & Che-Adam, N. (2016). Board characteristics and environmental disclosure in Nigeria. *International Information Institute (Tokyo). Information*, *19*(8A), 3069. https://www.proquest.com/openview/c588343ff12cbfc37cde5a57715a3ca0/1?pq-origsite=gscholar&cbl=936334

Osemene, O. F., & Fagbemi, T. O. (2019). A study of the relationship between corporate governance and environmental reporting in Nigeria's listed consumer goods companies. *Fountain University Osogbo Journal of Management (FUOJM).* 4(3), 1 – 22.

Oyekale, P. J., Olaoye, S. A., & Nwaobia, A. N. (2022). Corporate governance and environmental sustainability disclosure in non-financial companies quoted in Nigeria. *Journal of Finance and Accounting*, *10*(2), 121-131. http://jfinacc.org/article/10.11648/j.jfa.20221002.15

Rabi, A. M. (2021). Board characteristics and environmental disclosure: evidence from Jordan. *International Journal of Business and Management*, *14*(2), 1-57. https://ideas.repec.org/a/ibn/ijbmjn/v14y2021i2p57.html

Rafique, M. A., Malik, Q. A., Waheed, A., & Khan, N. U. (2017). Corporate governance and environmental reporting in Pakistan. *Pakistan Administrative Review*, *1*(2), 103-114. https://www.ssoar.info/ssoar/handle/document/53683

Shuaibu, K., Muhammad, A., & Isah, U. (2019). Corporate governance and environmental information disclosure of listed cement companies in Nigeria. *International Journal of Management and Commerce Innovations*, *7*(1), 292-305. https://www.researchgate.net/profile/Kabiru-Shuaibu/publication/348658879_CORPORATE_GOVERNACE_AND_ENVIRONMENTAL_INFORMATION_DISCLOSURE_OF_LISTED_CEMENT_COMPANIES_IN_NIGERIA/links/6009927392851c13fe274d27/CORPORATE-GOVERNACE-AND-ENVIRONMENTAL-INFORMATION-DISCLOSURE-OF-LISTED-CEMENT-COMPANIES-IN-NIGERIA.pdf

Tumwebaze, Z., Bananuka, J., Kaawaase, T. K., Bonareri, C. T., & Mutesasira, F. (2022). Audit committee effectiveness, internal audit function and sustainability reporting practices. *Asian Journal of Accounting Research*, *7*(2), 163-181. https://www.emerald.com/insight/content/doi/10.1108/AJAR-03-2021-0036/full/html

Umukoro, O. E., Uwuigbe, O. R., Uwuigbe, U., Adegboye, A., Ajetunmobi, O., & Nwaze, C. (2019). Board expertise and sustainability reporting in listed banks in Nigeria. In *IOP Conference Series: Earth and Environmental Science*. 331(1), 48. https://iopscience.iop.org/article/10.1088/1755-1315/331/1/012048/meta.

Visser, W.,Matten, D., Pohi, M., & Tolhurst, N.(Eds) (2007). The A to Z of corporate social responsibility: A complete reference guide to concepts, code and organizations. London: Wiley

Wei, W. (2006). The relationship among corporate political resources, political strategies, and political benefits of firms in china: Based on resource dependency theory. *Singapore Management Review*, *28*(2), 85-101. link.gale.com/apps/doc/A147755626/AONE?u=anon~cc3e4291&sid=googleScholar&xid=aa60ca53. Accessed 13 Oct. 2024.